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THE HUMAN BODY

KITERJESZTETT VALÓSÁG KÖNYV TESZT OLDAL

KEDVES ÉRDEKLŐDŐ!

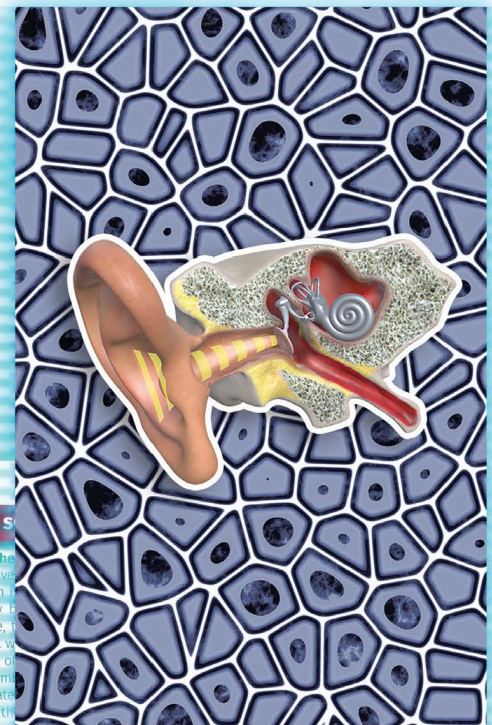
E teszt oldal segítségével ingyenesen kipróbálhatod a kiterjesztett valóság élményt. 40 témánk egyikét hoztuk el mintaként, így képet kaphatsz arról, hogy mi vár rád a könyvben.

HOGYAN MŰKÖDIK?

- 1 Nyomtasd ki ezt az oldalt színesben vagy fekete-fehérben!
- 2 Töltsd le **AR Books LibrARy** alkalmazásunkat!
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- 3 Regisztrálj be az applikációban!
- 4 A plusz gomb megnyomásával add meg a teszt oldal kódját az applikációban. **A kód: hearing**
- 5 Kattints a letöltött Hearing című kiadványra. Olvasd be az applikációval az AR targetet!



Jó moizást kívánunk!



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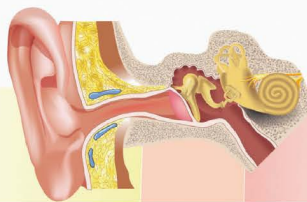
HEAR YE, HEAR YE

Sound waves travel as vibrations in the air. These vibrations are detected by our ears, which send signals to the auditory centre in the temporal lobe of the cerebrum. The ears have three sections, the outer, middle and inner ears.

OUTER AND MIDDLE EAR



The **outer ear** consists of the cartilaginous **auricle** and the external **auditory canal**, which is separated from the middle ear by the **eardrum**. The auricle gathers sound waves for the middle ear. Essentially, the eardrums act like drumheads; they pass the vibrations from the air to the tiny **auditory ossicles** in the middle ears (**malleus**, **incus**, and **stapes**, or hammer, anvil and stirrup, respectively). These little bones are in an air-filled cavity, and their function is to transmit the vibrations from the eardrum to the inner ear. The middle ear is connected to the pharynx through a thin canal, called the **Eustachian tube**.



INNER EAR

The cochlea of the inner ear is a spiral-shaped organ in a cavity of the temporal bone of the skull. It contains an outer **bony labyrinth** with a similarly wound-up **membranous labyrinth** inside. Tiny **auditory receptors (hair cells)** sit in the membranous labyrinth, surrounded by a liquid. The organs of balance are connected to the cochlea, and they include the utricle, the saccule and the three semicircular canals.

PROPAGATION OF S

Sound is **vibrations in the air**. In the outer ear, sound waves enter the ear canal, vibrating the eardrum, which is transmitted to the auditory ossicles in the middle ear. From there, the vibrations travel through the oval window membrane at the base of the cochlea to the liquid in the membranous labyrinth. The waves generated move the tiny hairs of the auditory receptor cells, causing them to send signals to the brain.

PITCH

High pitch sounds only trigger impulses at the base of the cochlea, while low pitch sounds travel further to the tip, which allows for pitch perception.



AUDITORY CENTRE

Exiting the ear, the cochlear nerve carries the impulses to the auditory centre in the temporal lobe, where the sensation of the sound develops. Perceived sounds are further processed by the cortical areas adjacent to the auditory centre.

THE EARS ALSO CONTAIN THE ORGANS OF BALANCE

